In-Processing Training – Environmental Briefing

Welcome to the Heidelberg Military Community

USAG Heidelberg
DPW-Environmental Division

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Technical areas and programs

- Environmental Management System (E
- Pollution Prevention (P2)

- Hazardous substances
- Asbestos and Artificial Mineral Fibers (
- Lead Based Paint
- Radon
- Soil and groundwater
- Drinking water
- Waste water
- Air emissions and noise
- Natural resources
- Cultural resources
- Awareness training
- Environmental Performance Assessment System (EPAS)

- Recycling

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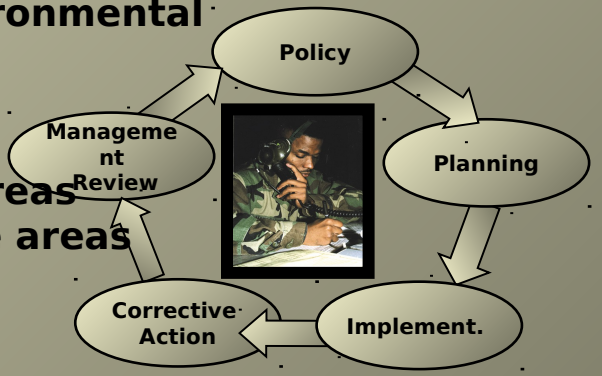
Environmental Management System (EMS)

EMS – purpose and main objectives

- Overall management system integrating already existing environmental programs
- Identify environmental aspects of activities/operations of all units
- Establish objectives for minimizing significant environmental impacts
- Ensure environmental „Continual Improvement“



Significant impacts identified for the USAG HD

- Energy consumption in offices and administrative areas
- Solid waste generation in offices and administrative areas
- Vehicle utilization and purchase

Objectives established for the USAG HD

- Reduce electrical consumption in offices and administrative areas by 2% by the end of FY06
  based on the FY03 baseline.
- Increase the amount of recycling of materials in unit and administrative areas by 15% by the end of FY06 based on the FY05 baseline.
- Increase the number of fuel efficient vehicles within the DPW non-tactical vehicles fleet by ~~10% by the end of FY07 based on the FY04 baseline.~~

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Pollution Prevention (P2)

P2 – purpose and main objective

- is the process of preventing, avoiding, or reducing pollution and the associated costs and safety hazards
- through increased efficiency in the use of raw materials, energy, water, or other resources.

P2 – strategies

- Equipment or technology modifications
- Process or procedure modifications
- Reformulation or redesign of products
- Substitution of raw materials
- Improvements in housekeeping
- Maintenance, training, and inventory control

prevent reduce → **promote recycling** → **permit treatment** → **discourage disposal**

pollution at the source whenever feasible

if pollution cannot be prevented

in an environmentally safe manner if pollution cannot be prevented or if recycling cannot be implemented

or other releases into the environment

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Hazardous substances

Storage and segregation of hazardous materials

- Sealed containers, secondary containment
- Material safety data sheets, operating instruction
- Weekly internal inspections

Identification and labeling requirements

- Recognition of contents; compatibility (possible chemical reactions)
  (flammable, corrosive, toxic, oxidizing substances separat
- External facility signs, hazard signs and mandatory signs

Spill prevention and response

- Notify US Fire Department and the Installation Commander
- Eliminate source and contain release (follow red plan)

Instruction and training

- All personnel using, handling or storing hazardous materials must receive awareness TRNG.
- Each unit has to appoint a primary and alternate ECO; ECOs are required to receive ECO training.

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Asbestos and Artificial Mineral Fibers (AMF)

Asbestos – characteristics and use

- Group of naturally occurring silicate minerals of microscopic fiber structure
- Good physical and chemical characterist Relatively inexpensive to install
- Contained in more than 3000 products, especially in the construction industry
- Germany: Intensively used since the 195 reduction since 1980; 1990s prohibition

Asbestos – health effects

- Microscopic fiber structure; respirable fibers according to WHO
- Biological resistance: >100 years
- Definitely carcinogenic; no toxicolog. action level
- Possible release of asbestos fibers in the room air is critical.

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Asbestos and Artificial Mineral Fibers (AMF)

AMF – characteristics and use

- Man-made silicate mineral fibers of different chemical co
- Installation of AMF products as asbestos substitute since
- Approx. 95% mineral wool products: Insulation
- Approx. 5% ceramic fibers: Electrical insulatio
- Characteristics: Fire proof, good insulation eff

AMF – health effects

- Microscopic fiber structure
- Potential carcinogenic effects depend on fiber structure and biological persistence in the body
- Carcin. potential: Asbestos fibers>ceramic fibers>min. w
- Determination of the carcinogenic index; skin and eye irri

Asbestos and AMF – corrective action

- Asbestos and AMF Inventories
- Building inspections and risk assessments
- Abatement (removal, encapsulation, enclosure), if required

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Lead Based Paint (LBP)

Characteristics and use

- Bluish/whitish or grey, odorless, flexible substance
- Heavy metal, naturally occurring in various ores
- USA and Army installations: LBP in buildings built befo
- Use of LBP: Pigment coating, corrosion and weather pr

Health effects

- Inhalation of lead particles vs. rel. high spec. weight o
- Ingestion of paint chips by kids (hand-to-mouth activities)
- Acute toxic effects possible: Stomach cramp, muscle and joint pain
- Long term effects: Damages to the nervous system or organs (kidn heart)
  Kids: Concentration/learning problems, hyperactivity, aggressive behavior
  Possible release of lead particles is critical.

Corrective action

- LBP Inventory
- Building inspections (AFH) and risk assessments
- Abatement or in-place-management, if required

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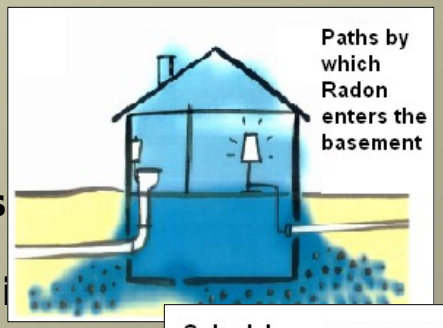
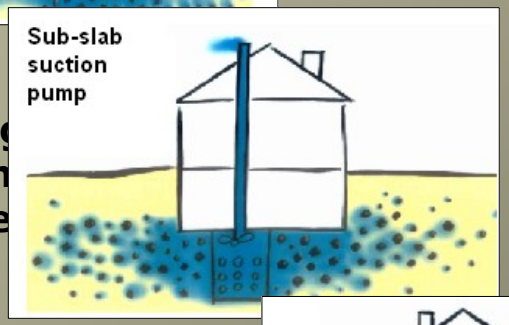
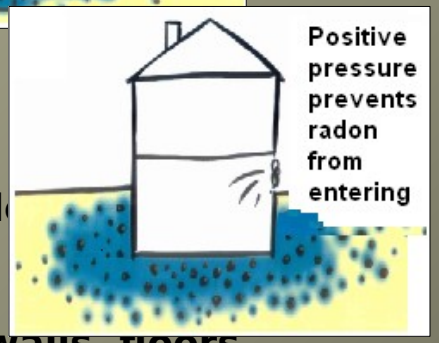
Radon

Characteristics and health effects







- Radon is a naturally occurring tasteless colorless but radioactive soil gas.
- Generated by the natural decay of urani in soil, sediments and rocks.
- Radon is considered to be the second leading cause of lung cancer, exceeded only by smoking
- Typically, it rises up through the ground and en buildings (basements) through cracks and othe openings in the foundation.

Corrective action

- Within the USAG HD's footprint all structures occupied more than 4 hours continuously have been tested for rad
- All areas found to exceed the EPA action level of 4 pCi/L have mitigation systems installed.
- Prior to the installation of mitigation units, all cracks in walls, floors and other openings (e.g. windows, doors, pipe entry points) must be sealed.
- Mitigation units circulate clean air into the basement, thus preventing radon from entering.

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Soil and groundwater

- ED investigates possible soil contamination due to historical site use or accidents with hazardous subs
- Soil investigations (drilling, sampling and chemica to identify and localize possible soil contamination.
- Cost effective remedial action (soil excavation, soil gas extraction etc.) can be taken, if required.

- Suspected sites: Fuel points, motor pools, maintenance shops, other industrial areas, USTs ASTs etc.

- Groundwater monitoring program
- Groundwater tests on a semi-annual basis (sampling and chemical analysis)

- US and German authorities work together to ensu that the groundwater is of high quality.

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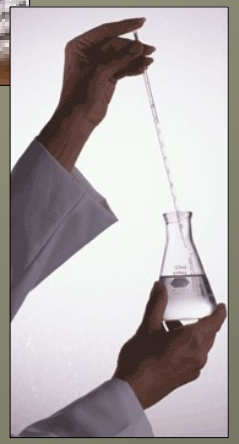
Drinking water



- Water supply systems are maintained/repaired by O&M, Sanitation Branch

- Annual drinking water monitoring program
- Potable water tests
  (sampling and biological, chemical and physical an
  Test results available on the DPW Intranet:
  https://144.170.220.218

- Drinking water of garrison's water net is chlorinated.
- Drinking water in Housing areas is additionally fluoridated.

- US and German authorities work together to ensure that the drinking water is of high quality.

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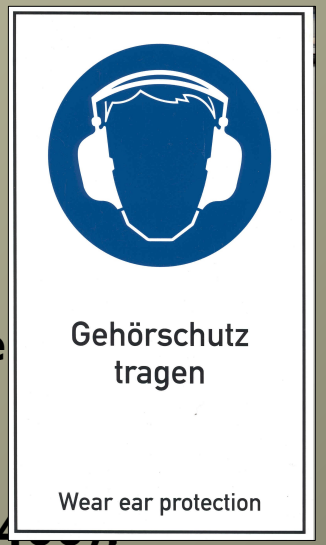
Noise management



- **<u>Most frequent noise sources</u>:**

  Road traffic, construction activities, operation of generators, A/C units and other equipme

- **<u>External complaints</u>:**

  To be reported to the Public Affairs Office (DSN 373-14[illegible]), Environmental Division investigates the incident without delay.

- **<u>Internal complaints</u>:**

  To be reported to the Safety Office (DSN 373-1670); close cooperation of Safety Office, Industrial Hygiene (DSN 373-9438) and ED (DSN 387-3140).

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Training activities

Environmental Compliance Officer (ECO) trainin

- Each unit has to appoint an primary and alternate
- All ECOs are required to receive ECO training.
- IMA-E is sponsoring 32 hours ECO training course

Hazardous Materials awareness training

- Training is conducted quarterly or upon request by the E

Asbestos training

- General asbestos awareness training
- Asbestos brake pad training for motor pools
- Training is conducted quarterly or upon request by the ED

EMS and P2 training

- Training for all staff to develop/ensure efficient management practices with environmental, safety, and cost management elements.
- Training is conducted upon request by the ED.

ED‘s website as training resource

- http://www.dpw.heidelberg.army.mil/root/default.htm

Environmental Performance Assessment System (EPAS)

Purpose of the EPAS program

- To assist all Army commanders in attaining, sustaining, and monitoring compliance with US and HN environmental laws and regulations, as well as DoD and Army requirements.

Objectives of EPAS assessments

- Identify non-compliance with environmental regulations
- Provide suggestions for both immediate and long-term corrective actions
- Indicate resources needed for implementation

EPAS multi-media-assessments

- Internal EPAS: Every year; conducted by the ED
- External EPAS: Every three years, conducted by external auditors under IMA-E's supervision; next external EPAS within the USAG Heidelberg: FY 06

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Heidelberg recycling program

Blue bins and containers
- Clean paper and cardboard
- Books, catalogues, magazines, newspapers, paper packaging
- Please break down your boxes

Black bins and gray containers
- Solid non-recyclable waste
- Dirty recyclable trash, dust, ashes, cigarette butts, animal litter etc.

Glass containers
- Clear, green and brown glass
- Bottles, drinking glasses etc.

Brown bins (compost)
- Compost/biodegradable
- Food/fruit/salad/vegetable leftovers,
- Garden waste, shrubbery etc.
- Bio plastic bags: paper bags o newspaper as wrapping

Yellow bag and containers
- Plastics (bags, bottles, cups, plastic foils, foams etc.)
- Metals (food cans, lids, tops, aluminum foils etc.)
- Composite materials (drink carto vacuum packaging etc.)

Green battery boxes
- Only for dry cell (household) batteries
- Please take car batteries to the Recycling Center at PHV!

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Heidelberg recycling program

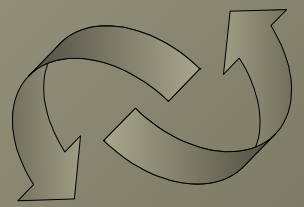
Please segregate all waste streams properly!

Don’t place or discharge HazMat into solid waste containers, sewer systems etc.!

Please report all HazMat leaks, spills, or unidentifiable substances immediately to the US Fire Dep.!

Please take all recyclables and excess HazMat to the Recycling Center!

- POC: Mr. Fischer 388-9323
- Operating Hours:
  Mon-Fri 0800-1200 & 1300-1600
  Sat 0800-1200



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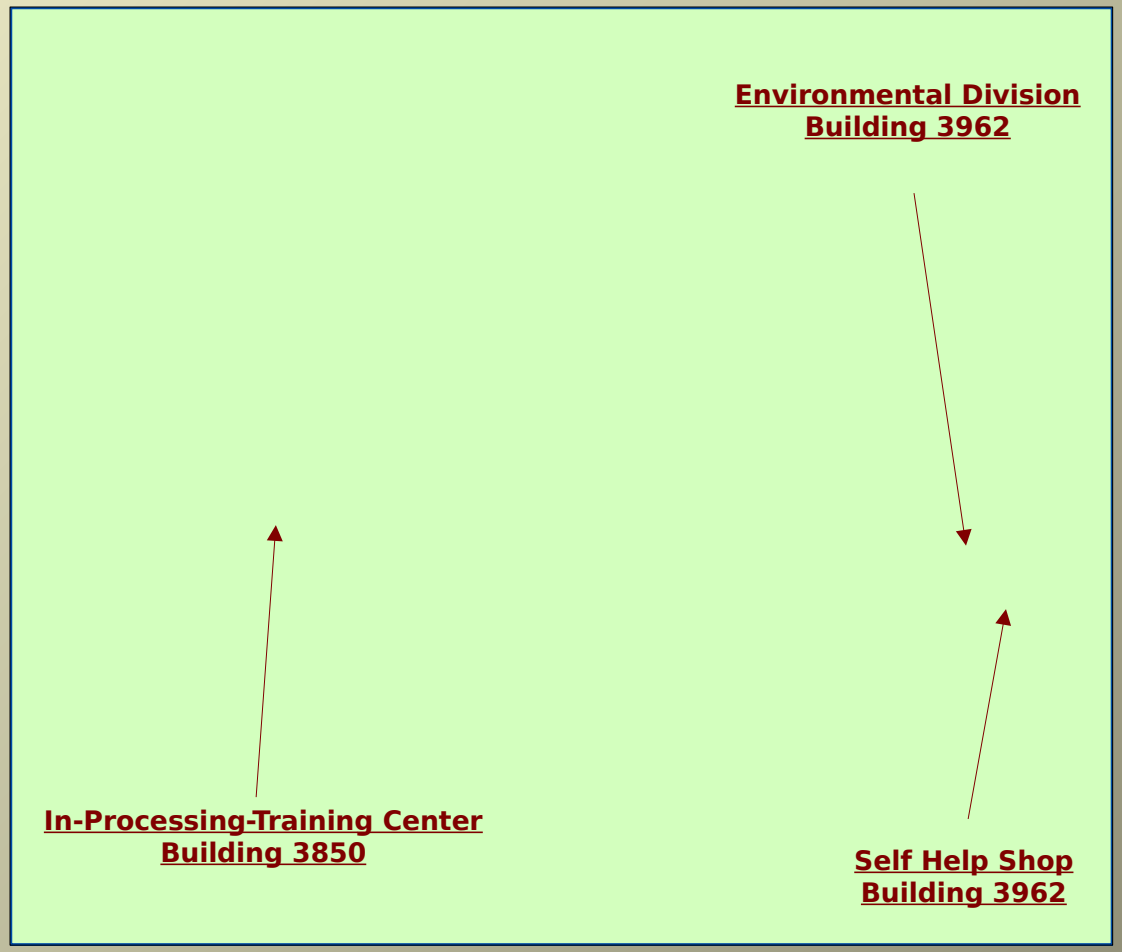
Additional information



Important telephone numbers

- DPW Office 387-3100
- Housing Manager 387-3290
- Chief O&M 387-3150
- Environmental Division 387-3140
- DPW Recycling POC 387-3180
- Safety Office 370-8189
- Industrial Health 373-9438
- Self Help Store 387-3232/3233
- Service Order Desk 387-3310/11/12
- Fire Department 373-8400/5000 (Emergency: 117)

DPW web site

https://www.hsbdpw.heidelberg.army.mil